UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,948	10/31/2003	Bernhard Kappler	1509-454	9403

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EXAMINER
DOAN, DUC T

ART UNIT	PAPER NUMBER
2188	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/697,948	KAPPLER, BERNHARD
	Examiner	Art Unit	
	Duc T. Doan	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 April 2005*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-23* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☒ All b)☐ Some * c)☐ None of:
    1.☒ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date *10/31/03*.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

Claims 1-23 are in the application.

Claims 1-23 are rejected.

Specifications

The disclosure is objected to because of the following informalities:

The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by other's in this country or patented or described in a printed

publication in this or a foreign country, before the invention thereof by the applicant for a patent.

 (b) the invention was patented or described in a printed publication in this or a foreign country or in public

use or on sale in this country, more than one year prior to the date of application for patent in the United

States.

(e) the invention was described in a patent granted on an application for patent by another fled in the United

States before the invention thereof by the applicant for patent, or on an international application by another

who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the

invention thereof by the applicant for patent.

Claims 1,11 is rejected under 35 U.S.C. 102 (e) as being anticipated by Federwisch (US

6889228).

As for claim 1, Federwisch describes a backup system for storing data objects on

secondary storage devices (Federwisch's Fig 1: #5 file system; column 4 lines 10-18, filesystem

preferably store one or more volumes of data, preferable including instructions for operating

filer), the backup system comprising a plurality of buffer memories for interfacing with the

secondary storage devices (Federwisch's Fig 1: #3 memory; column 4 lines 1-9 memory includes

RAM ROM and stores instructions, data, caches) and the back up system being configurable to

couple at least a sub-set of the buffer memories in a daisy-chain (Federwisch's column 2 lines 1-

10 describes allowing a filer to mirror from another mirror filers forming a chain or cascading of

mirror filers, therefore all components in a filer communicate to the subsequent filer in a

cascading manner, Federwisch's column 5 lines 5-15).

As for claim 11, the claim recites a plurality of buffer memories for coupling to a

plurality of backup storage devices, a configuration file for defining a configuration of the buffer

memories for providing at least one level of data mirroring. The claim rejected based on the

same rationale as in the rejection of claim 1. Ferderwisch's column 6 lines 3-25 describe a

mirror configuration file to define information for cascading and mirror operations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in

section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the

manner in which the invention was made.

Claims 2-8,10-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Federwisch

(US 6889228) as applied to claim 1, and further in view of Schutzman et al (US 6505216).

As for claim 2, the claim recites at least one backup media agent having a plurality of the

buffer memories and a program module for writing data from the buffer memories to one of the

secondary storage devices assigned to the at least one backup media agent. Federwisch does not

describe the claim's detail of backup media agent. However, Schutzman's Fig 2, column 13 line

55 to column 16 lines 17, describes a backup server comprises a backup server program to

interdependently and simultaneous control backup devices such as tape drives Fig 2: # 114. It

would have been obvious to one of ordinary skill in the art at the time of invention to include

backup server methods and structures and procedures as suggested by Schutzman in

Federwisch's system to independently operating multiple backup devices, thereby optimizing the

lengthy backing up time of relative slow backup devices such as tapes (Schutzman's column 4

lines 33-55; column 5 lines 5-12).

As for claim 3, the claim recites a backup group having a plurality of the backup media agents. The claim rejected based on the same rationale as in the rejection of claim 2,

As for claim 4, the claim rejected based on the same rationale as in the rejection of claim 1 and 2.

A for claim 5, the claim recites at least one mirror group comprising a plurality of the mirroring backup media agents (Schutzman's Fig 2, column 13 line 60 to column 14 line 43 describes the backup devices Fig 2: #114-1 to 114-L function as a group of backup devices to transfer multiple portions of data associated with the same file).

As for claim 6, the claim recites at least first and second ones of the mirroring backup media agents being coupled in a cascaded configuration for providing first and second mirroring levels. The claim rejected based on the same rationale as in the rejection of claim 1.Federwisch's column 5 lines 5-15 further describes filers formed a chain of mirror and submirrors.

As for claim 7, the claim recites at least one restore media agent comprising a plurality of buffer memories and a program module for reading data objects from one of the secondary storage devices assigned to the at least one restore media agent, at least a sub-set of the buffer memories of the at least one restore media agent being coupled to at least a sub-set of the buffer memories of the backup media agents. The claim rejected based on the same rationale as in the rejection of claims 1 and 2. Schutzman's column 14 lines 1-45 clearly describes the restore operates in a similar manner as in the backup operation, in a reverse direction.

As for claim 8, the claim recites at least one restore group having a plurality of the restore media agents. The claim rejected based on the same rationale as in the rejection of claim 7.

As for claim 10, the claim recites a plurality of client computer systems and a backup server, the plural client computer systems having primary storage devices for storing the data objects, and each client computer system having a backup component for assigning an unequivocal identifier to data objects and for sending the data objects with the assigned unequivocal identifiers to the backup server. Schutzman's column 13 lines 38 to 55 describes a client's backup program that can communicate with the LVM (Fig 1: #207, #110) and determine the file information and send access requests to backup server.

As for claim 12, the claim recites a server computer system comprising: a plurality of buffer memories for coupling to a plurality of secondary storage devices, a configuration file for defining a daisy-chain configuration of the buffer memories for copying data objects from a first sub-set of the secondary storage devices to a second sub-set of the secondary storage devices. The claim rejected based on the same rationale as in the rejection of claims 2,11. Schutzmann's column 24 lines 1-20 further describes a tuning file in which a system administrator can specify exactly which data portions are to be placed on upon which backup devices.

As for claim 13, the claim recites memory storing a computer program for controlling a computer system to cause coupling a plurality of buffer memories in a daisy-chain, the buffer memories being adapted to be coupled to secondary storage devices for back-up or copying data objects, the computer program comprising instructions for reading a daisy-chain configuration definition of the buffer memories from a configuration file. The claim rejected based on the same rationale as in the rejection of claims the claim rejected based on the same rationale as in the

rejection of claims 1,2,11. Schutzmann's Fig 2: #204, #233 shows memory contain backup client

and server programs; column 13 lines 55-67, column 23 lines 28-38 further describes these

programs are used to control the backup processes to backup devices Fig 2: #114-1 to 114-L.

As for claim 14, the claim recites a memory storing a computer program for controlling a

computer system for providing a user interface, the computer program comprising instructions

for enabling a user to enter a specification for a configuration of buffer memories of a backup

system, and for enabling the buffer memories to interface with secondary storage devices for

storing or copying of data objects. The claim rejected based on the same rationale as in the

rejection of claim 1,12.

As for claim 15, the claim recites wherein the instructions enable a user to specify a

daisy-chain configuration of the buffer memories. . The claim rejected based on the same

rationale as in the rejection of claim 14.

As for claim 16, the claim recites wherein the instructions enable a user to specify a

backup group comprising a plurality of backup media agents, each backup media agent having a

plurality of buffer memories and a program module for writing data from the buffer memories to

one of a plurality of secondary storage devices being assigned to the backup media agent. The

claim rejected based on the same rationale as in the rejection of claims 5.

As for claim 17, the claim recites wherein the instructions enable a user to enter a mirror

group comprising a plurality of buffer memories and the program module for writing of data

from the buffer memories to one of the secondary storage devices being assigned to the

mirroring media agent, and for specifying the coupling of a at least a sub-set of the buffer

memories of the backup media agents and at least the sub-set of the buffer memories of the mirroring backup media agents. The claim rejected based on the same rationale as in the rejection of claim 7.

As for claim 18-19, the claims recite wherein the instructions enable a user to enter a restore group, the restore group comprising a plurality of backup media agents (claim 18); wherein the computer instructions enable a user to enter at least one copy group, the copy group comprising backup media agents (claim 19). The claims rejected based on the same rationale as in the rejection of claim 14. Schutzmann's column 23 lines 1-5, column 15 lines 25-36 further describes the restoring operations are done concurrently in a similar manner to the backup operation.

As for claim 20, the claim recites a method of storing data objects on secondary storage devices by using plurality buffer memories at least a sub-set of which are coupled in a daisy chain configuration, the method comprising the step of: storing the data objects on the secondary storage devices through the buffers. The claim rejected based on the same rationale as in the rejection of claim 1.

As for claim 21, the claim recites coupling the sub-set of the buffer memories in the daisy-chain configuration. The claim rejected based on the same rationale as in the rejection of claim 1.

As for claims 22-23 wherein the buffers are coupled to provide one or more data mirroring stages (claim 22) wherein the buffers are coupled to provide one or more data copying

stages (claim 23). Federwisch's Fig 1: #3 memory, column 4 lines 1-9 describes data, caches

using in a mirroring scheme in which mirroring copies are done in stages (Fig 3: #10,14,15).

Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Federwisch (US

6889228), Schutzman et al (US 6505216) as applied to claim 7, and further in view of

Klostermann (US 6421687).

As for claim 9, the claim recites a copy group, the copy group having a plurality of the

backup media agents. Federwisch and Schuzman do not describe the claim's detail of the copy

group. However, Klostermann describes a duplicate storage system in which a data portion of a

storage mean is duplicated and stored in multiple other storage means (Klostermann's column 6

lines 25-40). It would have been obvious to one of ordinary skill in the art at the time of

invention to included duplication methods and structure as suggested by Klostermann in

Federwisch's system to duplicate data portions in multiple storage means, thereby always

providing the overall system with multiple redundancy copies of the data portion, thus in case a

particular platform fails, the system can be reconfigured instantly using the remaining live

platforms (Klostermann's column 7 lines 30-36).

Conclusion

When responding to the office action, Applicant is advised to provide the examiner with

the line numbers and page numbers in the application and/or references cited to assist examiner

to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Primary Examine